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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,973	05/22/2001	John H. Westerbeke JR.	00637-025001	9803
26161	7590	04/14/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			BENTON, JASON	
			ART UNIT	PAPER NUMBER

3747

DATE MAILED: 04/14/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/862,973

Applicant(s)

WESTERBEKE, JOHN H.

Examiner

Jason Benton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-12, 14, 15, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pluequet in view of Koziara et al.

The patent by Pluequet (4,463,709) shows an exhaust manifold cooling jacket to be attached to a cylinder head of a combustion engine. A cavity (between surfaces of 2 and 4) is sized to enclose an exhaust manifold of the engine and form an insulating space between the exhaust manifold and housing. A coolant passage (5) for receiving liquid coolant from an inlet of the jacket and for flowing the coolant through the cooling jacket is provided. An exhaust passage extends between an inner manifold interface of the housing and an exhaust elbow interface surface of the housing, for forming a sealed exhaust conduit and for conducting a flow of exhaust from the exhaust manifold through the housing. The cooling jacket housing is in the form of a shell having an open side sufficiently large to permit the housing to be placed about the exhaust manifold of the engine with the exhaust manifold mounted upon the cylinder head. The open side of

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the housing comprises a rim extending about the open side and lying in a single plane to form a planar block interface surface.

The rim of the housing is arranged to be coplanar with a block interface surface of the exhaust manifold as attached to the cylinder head, for engaging a backing plate (8a) mounted between the cylinder head and exhaust manifold and extending laterally beyond the exhaust manifold (Fig. 3).

The housing is in the form of a unitary casting.

The housing further defines at least one mounting hole (3a) extending through the housing adjacent the exhaust passage and arranged to align with a mounting hole on the exhaust manifold, for receiving a threaded fastener to attach the housing to the cylinder head via the exhaust manifold.

The cooling jacket is constructed to isolate the liquid coolant from any direct contact with the exhaust manifold.

The insulating space is filled with air and isolated from the flow of the exhaust

The patent by Pluequet does not show a catalytic conversion element disposed within the housing. It is the view of the examiner that catalytic conversion elements are common in the art. The patent by Koziara et al. (5,619,956) shows a catalytic conversion element (160) in the exhaust manifold. It would have been obvious to anyone skilled in the art who wanted to treat the exhaust emissions, to improve on Pluequet by providing a catalytic converter in the exhaust manifold.

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pluequet in view of Koziara et al.

The patent by Pluequet shows support fasteners (6) where the cooling jacket housing directly contacts the exhaust manifold. It is the view of the examiner that the fastening device is a supplementary fastening device and is not required. Therefor, it is viewed by the examiner that the addition or exclusion of additional fasteners is a choice of design because no new or unexpected results were achieved by the withdrawal of the fastener.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pluequet in view of Koziara et al.

The patent by Pluequet shows multiple coolant passages having a U-shaped cavity extending across the broad face of the housing and into multiple sides of the housing. The combination of the U-shaped cavities form an overall cup-shaped coolant jacket. It is the view of the examiner that the patent by Pluequet has supplemental ribs for strength separating the U-shaped passages. The ribs are viewed as not being vital to the patent, therefor it is the view of the examiner that the addition or exclusion of structured ribs in the cooling jacket for strength is a choice of design based on cost and

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strength considerations, because no new or unexpected results are achieved by the addition or exclusion of the ribs.

Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pluequet in view of Koziara et al. and Takahashi et al.

The patent by Pluequet does not show a coolant outlet extending from the coolant passage through the exhaust elbow interface surface adjacent the exhaust conduit. It is the view of the examiner that it is well known in the art to provide coolant ports for coolant jackets around exhaust manifolds, to be adjacent the exhaust conduit. The patent by Takahashi et al. (5,873,330) shows a coolant jacket about an exhaust manifold. The method of providing coolant to the coolant jacket is through the exhaust elbow interface surface adjacent the exhaust conduit (Fig. 11). In view of Takahashi, it would have been obvious to anyone skilled in the art who wanted to provide coolant to a coolant jacket to improve on Pluequet by providing a coolant passage through the exhaust elbow interface surface adjacent the exhaust conduit.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pluequet in view of Koziara et al.

It is the view of the examiner that the material located in the insulating space is a choice of design because no new or unexpected results are achieved from varying the material in the insulating space.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Benton whose telephone number is (703) 305-6800. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-6800-1.

JB



Noah P. Keener  
Primary Examiner